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topic 3.1: "Basin Management and Transboundary Cooperation".





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What are the success and failures stories of hydro solidarity and IWRM at basin level?

How to organize and enable stakeholders participation ?

How can transboundary water resources be managed more sustainably by all the riparian countries concerned?

What are the tools to be used for better basin management and transboundary cooperation over surface and ground water ?

WWF5 - Topic 3.1

4 questions were selected:





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23 October 2000



The European Framework Directive:
the future of water resource management
In the European Union.



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Implementation of
the UN Convention
for the international water courses management
in Europe – HELSINKY 1992
is also a major milestone for promoting the
principles of good governance





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water resources management should be organized:

1) on the scale of local, national, transboundary basins of rivers, lakes and aquifers;



**River basins are natural units, where water runs,
on the ground and in sub-soil**



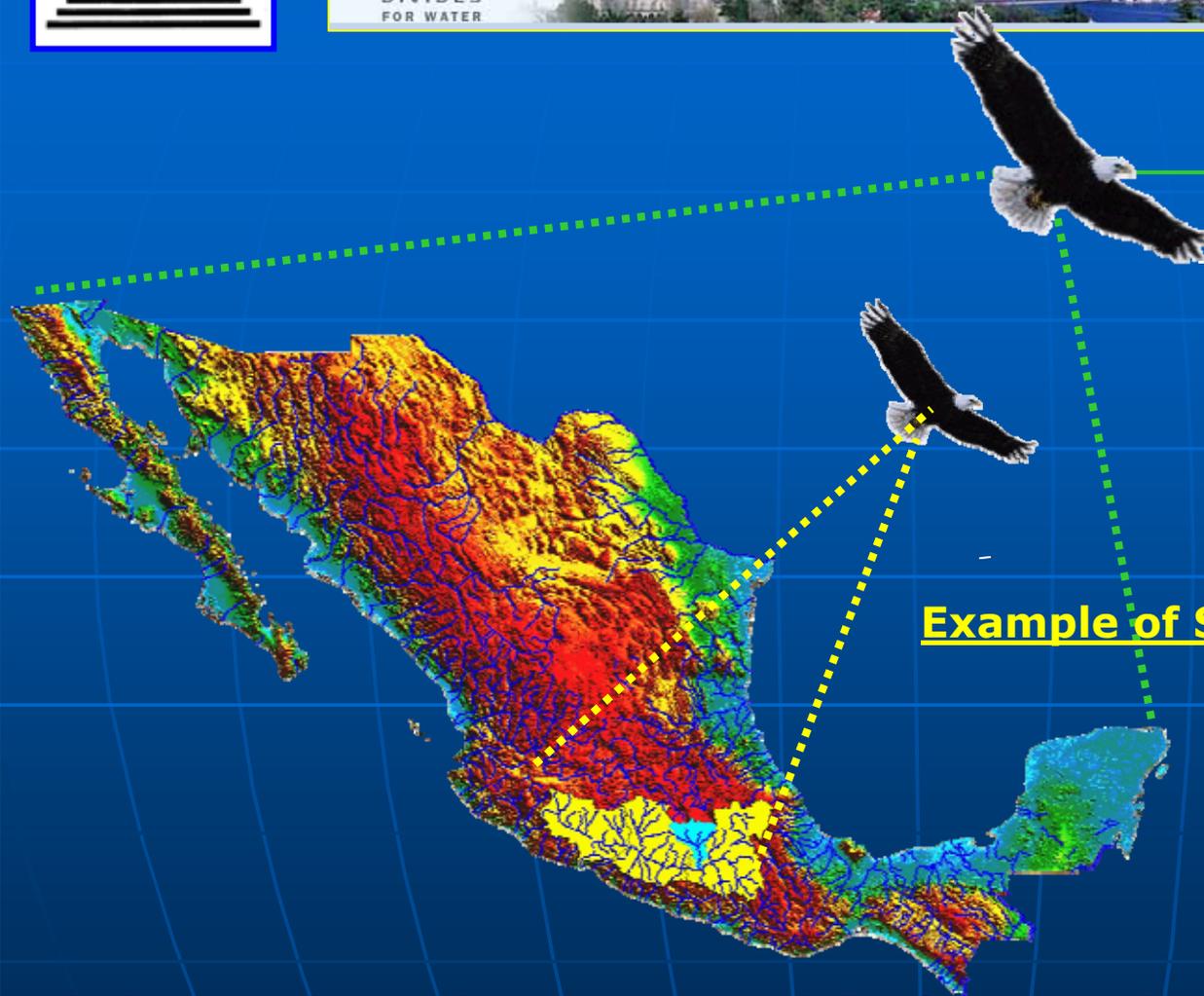
5th WORLD WATER FORUM

water resources management should be organized:

BRIDGING
DIVIDES
FOR WATER



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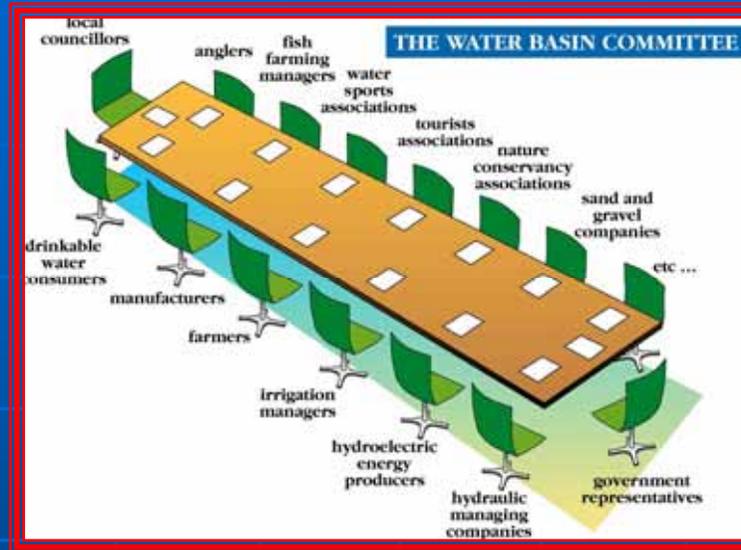


Example of SINA and SIRA in Mexico

2) based on integrated information systems,
allowing knowledge on resources and their uses, polluting pressures,
ecosystems and their functioning, the follow-up of their evolutions
and risk assessment.



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3) with the participation in decision-making

of the concerned Governmental Administrations and local Authorities, the representatives of different categories of users and associations for environmental protection or of public interest, especially, in Basin Councils or Committees.

- Information, awareness and education of populations or users and of their representatives are essential,



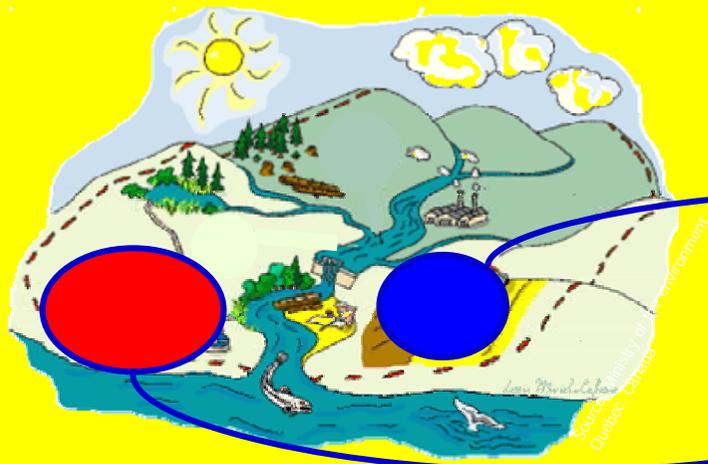
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BRIDGING DIVIDES FOR WATER



2004

Description of the initial situation



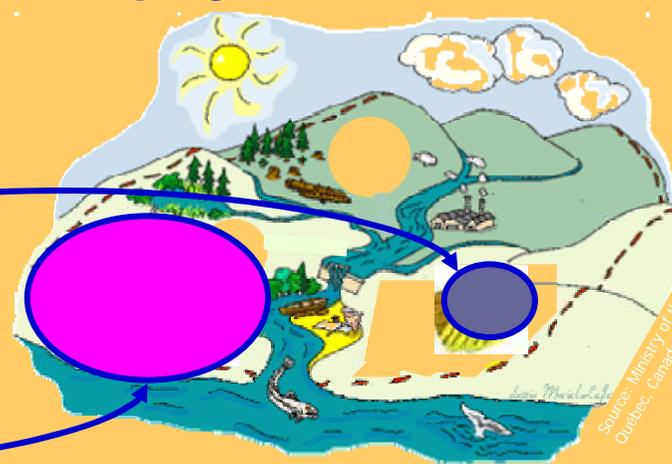
Source: Ministry of the environment, Quebec, Canada

Focus on economic aspects:

- estimate the economic "weight" of water uses and services
- assess the level of recovery of costs of water services

2015

Baseline scenario: projection for 2015



Source: Ministry of the environment, Quebec, Canada

Baseline scenario:

- appraisal of evolutions of uses, pressures...
- identification of potential gaps in water status with GES

4) based on management plans or master plans
that define the medium and long-term objectives to be achieved;



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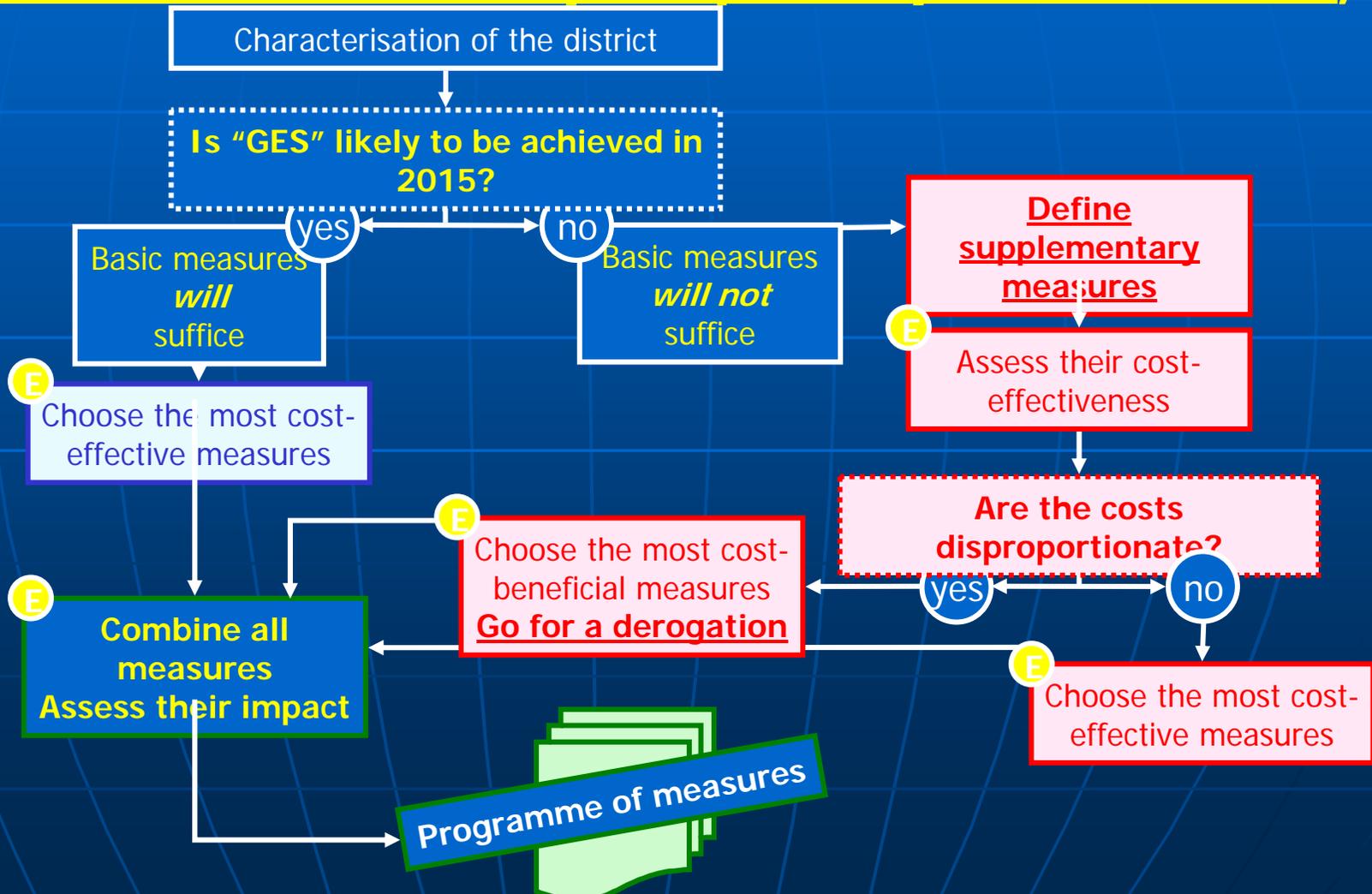
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5) through the development of Programs of Measures and multiyear priority investments;





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water resources management should be organized:

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6) with the mobilization of specific financial resources,

VARIOUS COMPLEMENTARY SYSTEMS FOR COST RECOVERY

ADMINISTRATIVE TAXES: paid to the general budget.

- General taxes or penal fines
- New ecological tax.

WATER-RELATED CHARGES:

- National water charges – transiting through "Special Accounts of the Treasury"
- Basin water charges – levied by the Water Agency

THE PRICING OF COMMUNITY SERVICES:

- Price of raw water – levied by big developers
- Price of drinking water – levied by the municipalities or water suppliers

TRANSFERTS: International aid or from other economical sectors.



DEFINING ROLES AND RESPONSIBILITIES OF EACH:



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- **A clear legal framework** must specify, in each country, the rights and obligations, the possible levels of decentralization, the institutional responsibilities of the different stakeholders, the processes and means needed for good water governance,



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Conflicts

requirements collected
from each point of view



Designing a program
through **dialogue**



Reaching **agreement**
with an ambitious program





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« UPSTREAM-DOWNSTREAM » COMMON CAUSE ON THE SCALE OF BASINS AND SUB-BASINS



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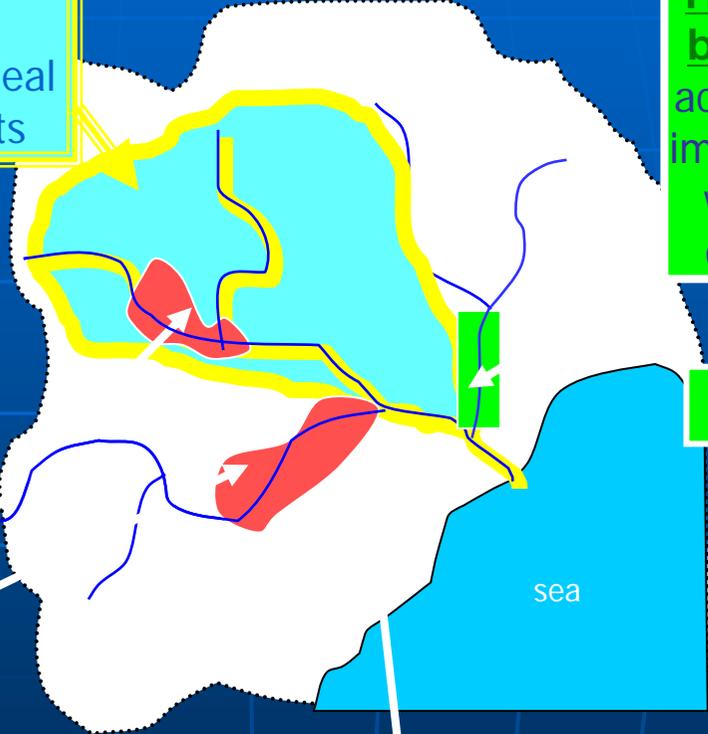
Sub-basin/Sector/
Water type
element of district to deal with particular aspects

Heavily modified water bodies (HMWB): human activity carried out makes it impossible to reach the goal without disproportionate costs (change activity...)

⇒ no link with pollution

THE DIFFERENT HYDROLOGICAL SCALES:

Water bodies
scale of evaluation of the achievement of good status



District =
river basins + associated groundwaters and coastal waters



INTEGRATED WATER RESOURCE MANAGEMENT

- OVERALL MEETING OF RATIONAL AND LEGITIMATE DEMANDS
 - Agriculture
 - Domestic uses
 - Industry
 - Fish farming
 - Electricity
 - Transports
 - Leisure
 - Fishing
- WASTEWATER TREATMENT AND RECYCLING,
- CONSERVATION OF ECOSYSTEMS:
rivers, lakes, wetlands, aquifers, costal areas,
- RISK PREVENTION :
 - Erosion
 - Drought
 - Floods



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Costs	Definition	Example
Direct cost	Capital costs	<i>Principal and interest, depreciation</i>
	Operating costs	<i>Wages, electricity, maintenance of equipment, analyses of the quality of water...</i>
Environmental cost	Costs of the damages to the environment caused by a given activity	<i>Contamination of an aquifer, destruction of wetlands...</i>
Resource cost	Value of the alternative foregone by choosing a particular activity (= opportunity costs)	<i>Cost of electricity that could have been produced if water would be available instead of being pumped for irrigation</i>

Sum = full cost



**IF WE ARE NOT ABLE TO MOBILIZE ENOUGH MONEY,
WE SHALL NOT HAVE THE FRESH WATER WE NEED!**

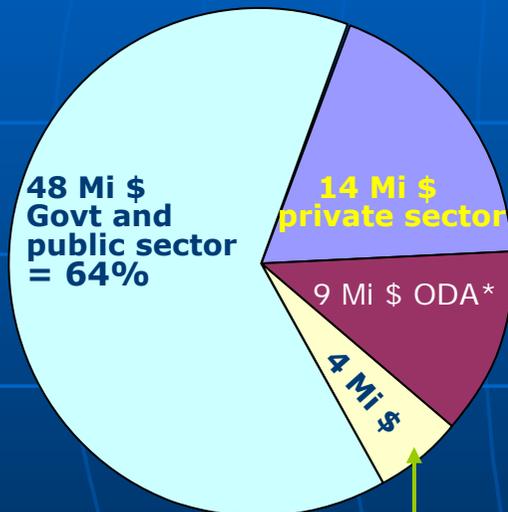


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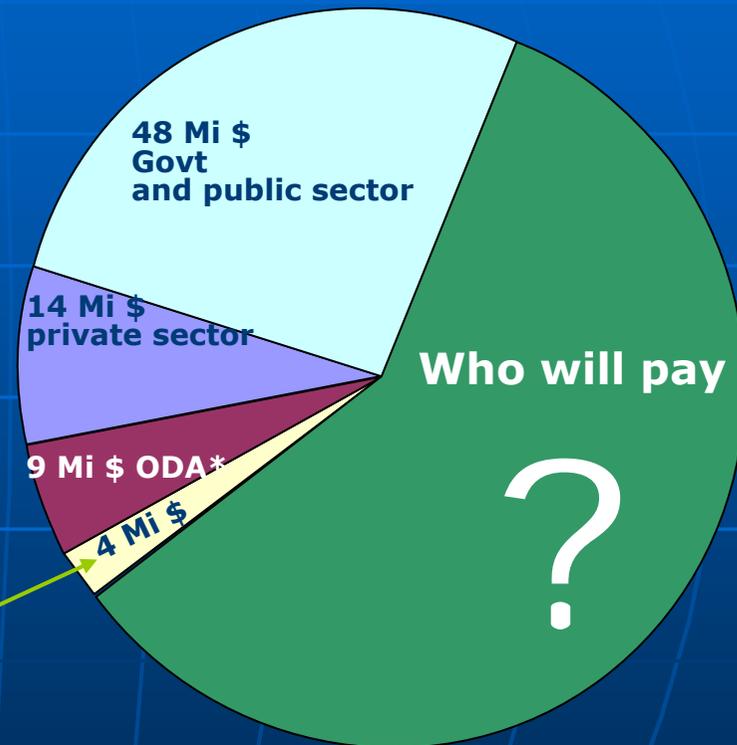
Who will pay ?

FOR THE NEXT 25 YEARS

NOW



International firms



75 milliards \$ / year

180 milliards \$ / year

* Official Development Assistance



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FINANCING WATER POLICY:

- ◆ **The international official aid only represents 10% of the investments made worldwide.**
- ◆ **Public budgets cannot bear alone all the investment and operating costs.**
- ◆ **The users must contribute according to the "polluter-pays" principle and the "users-pay" systems.**

= WATER MUST PAY FOR WATER



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**The Water Agency's Budget
adopted by the Board of Directors
with approval of the Basin Committee**

10 % ↓

- Studies & Research**
- Operation**
- Measurement networks**

↓ 90 %

- Aid = 5-year Program**
- Big developers**
- Local authorities**
- Farmers**
- Industrialists**



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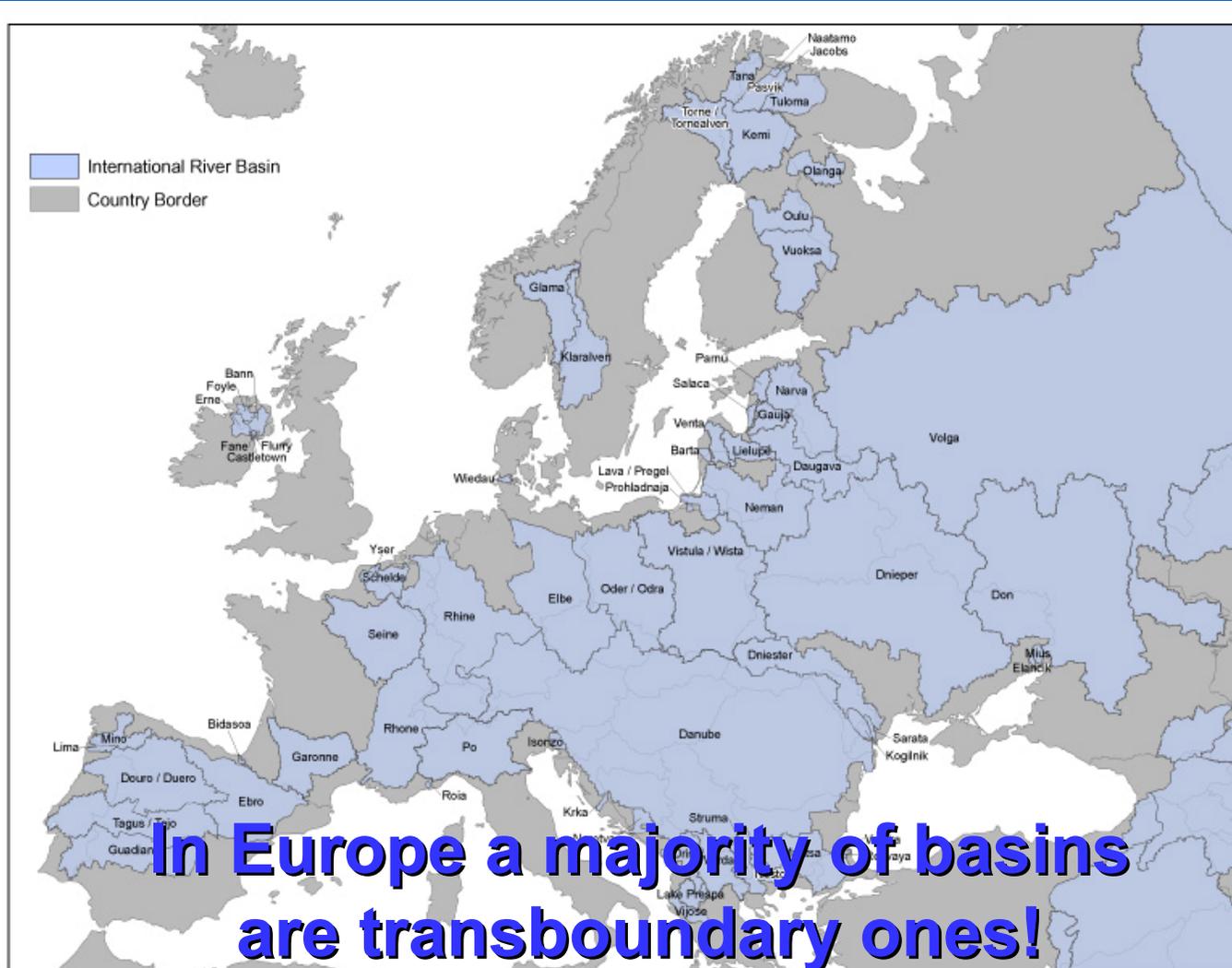


TWO HUNDRED AND SEVENTY SIX RIVERS OR LAKES AND HUNDREDS OF AQUIFERS ARE TRANSBOUNDARY ONES

<i>Transboundary basins per continent.</i>			<i>Pourcentage du territoire</i>
<i>Afrique</i>		59	62 %
<i>Asie</i>		57	39 %
<i>Europe</i>		69	54 %
<i>Amerique du Nord</i>		40	35 %
<i>Amerique du Sud</i>		38	60 %
TOTAL		276	45 %



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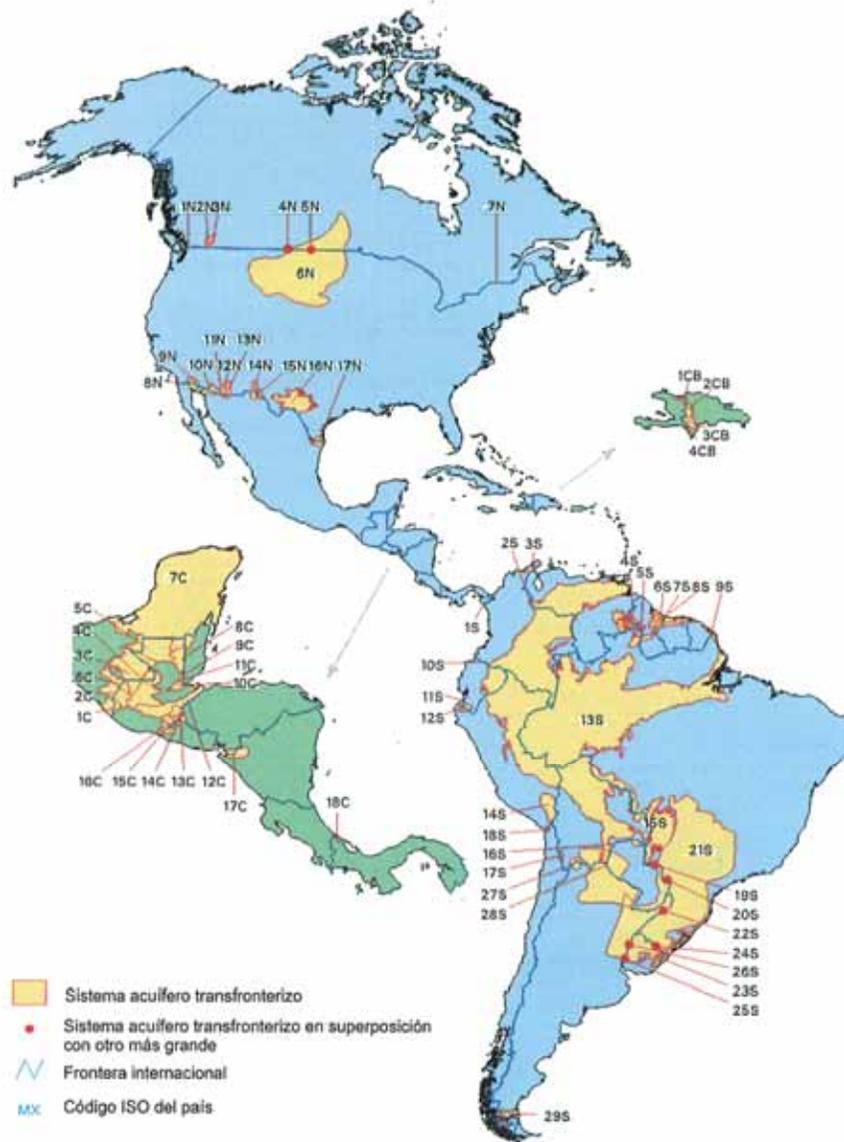


**In Europe a majority of basins
are transboundary ones!**



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Sistemas Acuíferos Transfronterizos de las Américas





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- The 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (**Helsinki Water Convention**), originally limited to Europe beyond the UNECE region, has been the basis for adoption of many bilateral and multilateral agreements, most notably the 1994 Convention on the Cooperation for the Protection and Sustainable Use of the Danube River.
- At the global level, **the 1997 Convention** on the Non-navigational Uses of International Watercourses enables inter-state cooperation on international watercourses has not been ratified yet, but its core principles are already part of many international customary agreements.
- The United Nations International Law Commission has prepared a set of **articles related to the use of shared aquifers** which was adopted during the last session of the UN General Assembly.
- The European Water Framework Directive** is still implemented by the 27 EU Members States and some neighbor Countries and fixes as a common objective before 2015 the good ecological statute of water and ecosystems in all the concerned basins including all the transboundary ones.



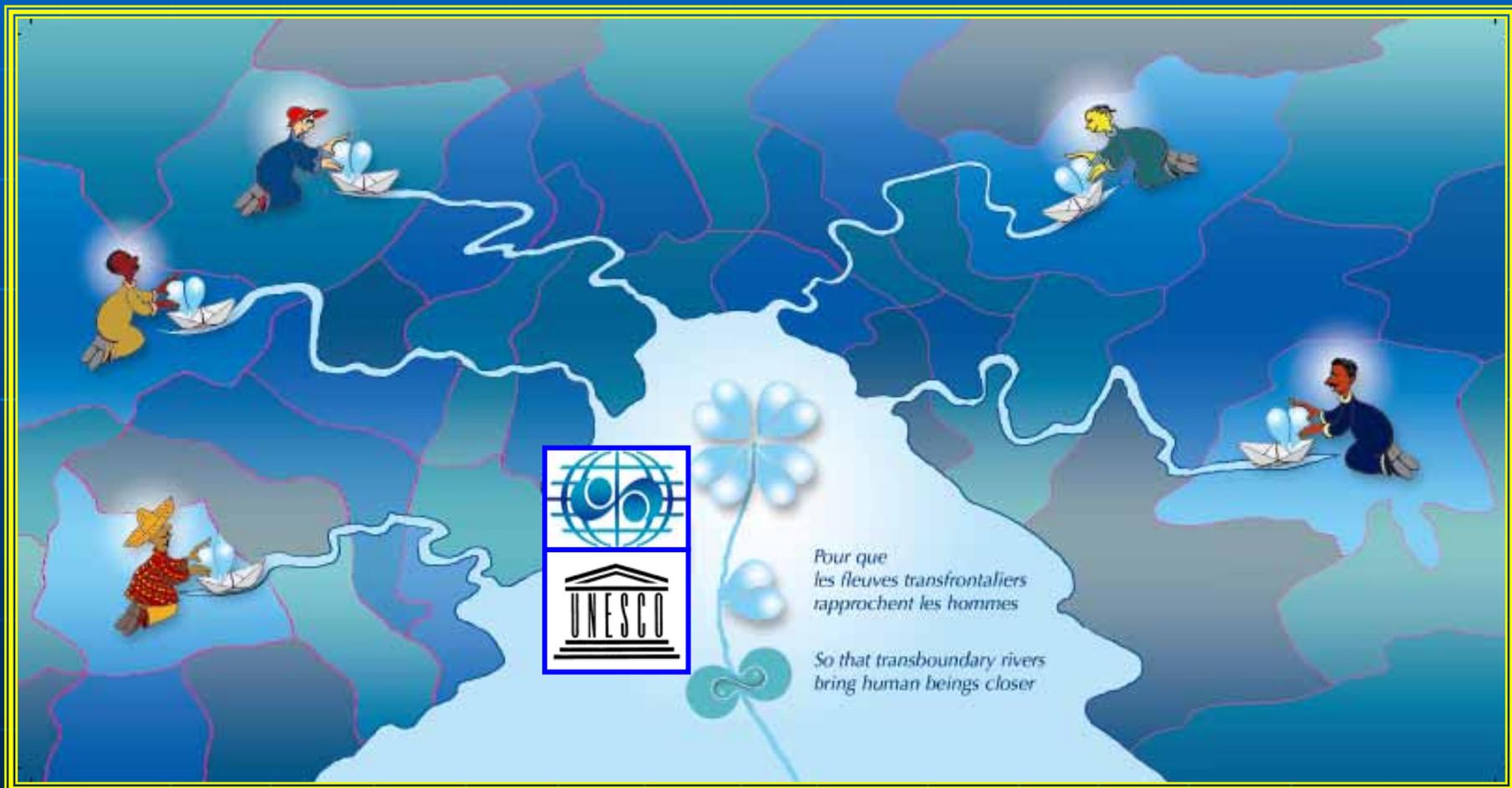
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- **As regards large transboundary rivers, lakes or aquifers** cooperation agreements should be signed by riparian countries and management plans designed at the level of the whole basin, especially in **International or transboundary Commissions, Authorities or Organizations.**



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NOW WE MAY GO AHEAD FOR BETTER BASIN MANAGEMENT AROUND THE WORLD

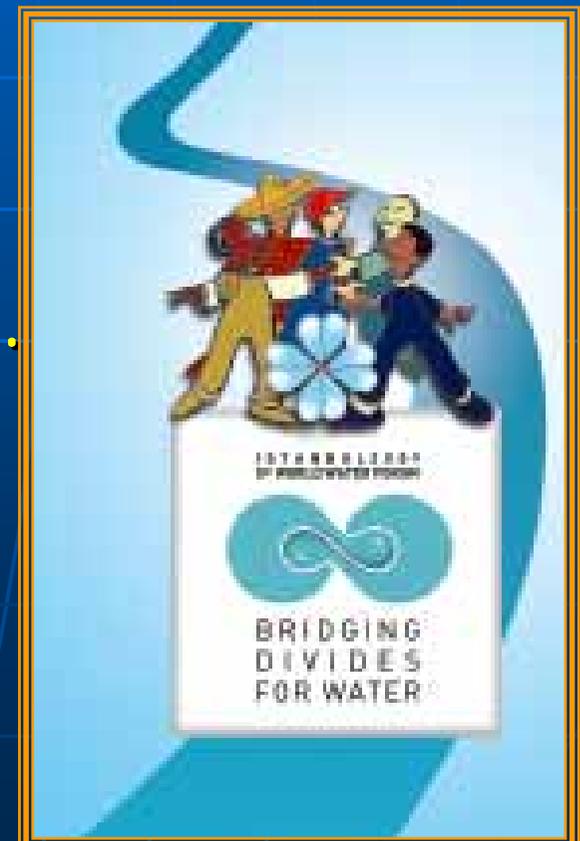




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Basin Management and Transboundary cooperation

- The key of success is a strong political support....
- Yes, we can!
- Just do it!!!!!!



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THANK YOU FOR YOUR ATTENTION!**

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Réseau International des Organismes de Bassin

International Network of Basin Organizations

Red Internacional de Organismos de Cuenca

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